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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	:	Broliden et al.	Group Art Unit 1648
Appl. No.	:	09/991,433	
Filed	:	November 16, 2001	
For	:	USE OF PARVOVIRUS CAPSID PARTICLES IN THE INHIBITION OF CELL PROLIFERATION AND MIGRATION	
Examiner	:	Zachariah Lucas	

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class mail in an envelope addressed to: United States Patent and Trademark Office, P.O. Box 2327, Arlington, VA 22202, on

November 27, 2002
(Date)

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RESPONSE TO RESTRICTION REQUIREMENT
and
PRELIMINARY AMENDMENT

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01 FC:2201 84.00 OP
02 FC:2202 90.00 OP
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Dear Sir:

In response to the paper mailed October 21, 2002, Applicants submit the following response to restriction requirement, preliminary amendment, and remarks.

Response to Restriction Requirement

Applicants elect, without traverse, to prosecute the claims of **Group I**. Group I, as noted by the Examiner in the subject Requirement for Restriction, comprises Claims 1-8 and 18-25, drawn to methods of inhibiting the growth of hematopoietic cells by contacting the cells with a growth inhibiting amount of a B19 parvovirus capsid or a fragment thereof, classified in Class 424, Subclass 233.1.

The Examiner has also required Applicants to elect to prosecute claims directed to one of seven inventions. Accordingly, Applicants elect, without traverse, to prosecute claims directed

to capsid agents of **Fragment (a)**. That is, Applicants elect to prosecute claims directed to capsid agents comprising a fragment of B19 capsid of sequence glutamine-glutamine-tyrosine.

Still further, the Examiner has determined that the above-referenced application contains claims that are generic to six species of invention (a) and has required Applicants to elect a single species for prosecution on the merits and a listing of all claims readable thereon. The Examiner notes that some of the restriction requirements fall within the scope of PTO Linking claim practice and that linking claims will be considered with the elected invention and that if the elected invention is found allowable, the linking claim will be examined and that if no substantive rejection is found for the linking claim, the restriction among the groups it comprises will be withdrawn.

In accordance with the Examiner's further restriction and PTO Linking claim practice, Applicants elect to prosecute claims directed to **Species (1)**. Species (1), as identified by the Examiner, encompasses an isolated or purified fragment of a B19 parvovirus capsid consisting of the sequence glutamine-glutamine-tyrosine. Claims of Group I, Fragment (a) that read-on Species (1) include: (originally filed) Claims 1, 4, 5, 7, 8, 18, 21, 22, 24, and 25 and (new) Claims 34-43.

Applicants respectfully submit that Claims 1, 4, 7, and 8 fall within PTO Linking claim practice with respect to linked Claim 5, which is directed to a method of inhibiting the growth of hematopoietic cells using a fragment of B19 parvovirus capsid consisting of the sequence glutamine-glutamine-tyrosine (Species (1)). Similarly, Claims 18, 21, 24, and 25 are linking claims joined by Claim 22, which is directed to a method of inhibiting the growth hematopoietic cells using a fragment of B19 parvovirus capsid consisting of the sequence glutamine-glutamine-tyrosine (Species (1)).

Similarly, new Claims 34-37 are linking claims joined by Claim 38, which is directed to a method of inhibiting the growth of hematopoietic cells using a capsid agent consisting of the sequence glutamine-glutamine-tyrosine (Species (1)); whereas Claims 39-42 are linking claims joined by Claim 43, which is directed to a method of inhibiting the growth of hematopoietic cells using a capsid agent consisting of the sequence glutamine-glutamine-tyrosine (Species (1)).

Applicants also respectfully submit that Claims 2, 3, and 6 are linked to Claim 1, from which they depend, and Claims 19, 20, and 23 are linked to Claim 18, from which they depend. Applicants reserve the right to rejoin, as appropriate, any non elected groups, linking claims, linked claims, and/or species.

Preliminary Amendment

Prior to examination on the merits, please add the following claims.

34. (NEW) A method of inhibiting the growth of hematopoietic cells comprising:

contacting a plurality of hematopoietic cells with a growth inhibiting amount of a capsid agent comprising the sequence glutamine-glutamine-tyrosine; and

measuring the inhibition of growth of said hematopoietic cells.

35. (NEW) The method of Claim 34, wherein said capsid agent comprises a recombinant B19 parvovirus capsid.

36. (NEW) The method of Claim 34, wherein said capsid agent comprises a recombinant B19 VP2 parvovirus capsid.

37. (NEW) The method of Claim 34, wherein said capsid agent comprises a sequence selected from the group consisting of SEQ. ID. NO. 2, SEQ. ID. NO. 3, SEQ. ID. NO. 4, SEQ. ID. NO. 5, SEQ. ID. NO. 6, SEQ. ID. NO. 7, SEQ. ID. NO. 8, SEQ. ID. NO. 45, and SEQ. ID. NO. 48.

38. (NEW) The method of Claim 34, wherein said capsid agent consists of the sequence glutamine-glutamine-tyrosine.

39. (NEW) A method of inhibiting the growth of hematopoietic cells comprising:
identifying a subject in need of an inhibition of growth of hematopoietic cells; and
providing to said subject a growth inhibiting amount of a capsid agent comprising the sequence glutamine-glutamine-tyrosine.

40. (NEW) The method of Claim 39, wherein said capsid agent comprises a recombinant B19 parvovirus capsid.

41. (NEW) The method of Claim 39, wherein said capsid agent comprises a recombinant B19 VP2 parvovirus capsid.

42. (NEW) The method of Claim 39, wherein said capsid agent comprises a sequence selected from the group consisting of SEQ. ID. NO. 2, SEQ. ID. NO. 3, SEQ. ID. NO. 4, SEQ. ID. NO. 5, SEQ. ID. NO. 6, SEQ. ID. NO. 7, SEQ. ID. NO. 8, SEQ. ID. NO. 45, and SEQ. ID. NO. 48.

43. (NEW) The method of Claim 39, wherein said capsid agent consists of the sequence glutamine-glutamine-tyrosine.

Remarks

Applicants have elected to prosecute claims directed to **Group I** (Claims 1-8 and 18-25), drawn to methods of inhibiting the growth of hematopoietic cells by contacting said cells with a growth inhibiting amount of a capsid agent. Applicants have further elected to prosecute claims directed to capsid agents that comprise glutamine-glutamine-tyrosine **(Fragment (a))**. Applicants have also elected to initially examine claims directed to capsid agents consisting of the sequence of glutamine-glutamine-tyrosine **(Species (1))**.

Applicants submit herewith a preliminary amendment that adds new claims 34-43, which are directed to and read-on the elected invention. Support for these claims can be found in the